

WF

N468b

1856





A

BRIEF TREATISE

ON THE

DISEASES OF THE RESPIRATORY ORGANS,

WITH THEIR TREATMENT

BY THE INHALATION OF

COLD MEDICATED VAPORS,

AND THE USE OF

SHOWERING SYRINGES.

BY

D. D. T. NESTELL, A.M., M.D.,

*Author of "An Obstetric Catechism," "Examinations in Anatomy, Physiology,
Chemistry, and Botany, for the Use of Students," "Human Physiology,"
and Attending Physician to the*

NEW YORK LUNG INSTITUTE,

No. 6 BOND STREET.

NEW YORK:

PUBLISHED FOR GRATUITOUS DISTRIBUTION.

1856.

HENRY PALMER, STEREOTYPED, 129 WILLIAM STREET, N. Y.

WF

N4686

1856

Entered, according to Act of Congress, in the year 1855, by

N. S. DAY.

in the Clerk's Office of the District Court of the United States for the Southern District of
New York.

A BRIEF TREATISE

ON THE

DISEASES OF THE RESPIRATORY ORGANS.

INTRODUCTORY REMARKS.

It is now two years since the New York Lung Institute was first opened for the reception of consumptive invalids for their exclusive treatment by the inhalation of cold medicated vapors, and the success that has marked its progress is indeed gratifying and promising, when we consider that from every quarter of the United States, Canada, and even the West Indies, we have received most flattering letters from both professional and non-professional parties who have written us the glorious results of their practice and experience of the cases coming under their notice—thus giving most positive proofs of their confidence in the curative virtues of cold medicated vapors.

Under the circumstances, we do not require the testimonials of foreign celebrities, such as Lænnec, Sir James Clark, Dr. Carswell, etc., etc., while we possess the incontestible evidence of the living at home.

It is now conceded by the most scientific minds that diseases of the respiratory organs are local, and that they require local treatment.

Upon this principle, then, who would dream of administering drugs and other poisons to the unoffending stomach, which is physiologically intended as a receptacle for food only, for the removal of diseases of remote organs—the lungs, the great toe, the eye, when these require local and direct applications?

The theory we hold is, that tubercular consumption is at first a local disease, having its origin in the air-cells of the lungs, which, becoming obliterated, fill up, thus preventing the blood from being vitalized or purified by the exclusion of the necessary amount of air from the blood. This is the primary step to the further formation in the blood, and deposit in

the cells of the lungs, of scrofulous or tuberculous matter, giving rise to the symptoms of cough, shortness of breath, night-sweats, etc., etc. On the other hand, the ancient theory has been, that an impure condition of the blood was the *cause* of diseased action in the lungs; hence the practice of seeking a cure through the medium of the stomach. In direct opposition to that hypothesis, we contend that the altered condition of the blood is merely *the result* of a primary disease of the lungs, and *not the cause*, and which, being *local* in kind or character, should be treated by *local remedies*.

If we can be persuaded that *no* cause is capable of producing irritation and its attendant disease in the delicate lining membrane of the throat and lungs, in precisely the same manner that that membrane is influenced by atmospheric contact, then we will be ready to admit that not only is the *principle* of local diseases requiring local treatment *wrong*, but that consumption in all its varied forms is but a constitutional malady arising from a previously vitiated habit, etc., etc., and that its cure can only be effected by means of drugging the stomach with grossly incompatible nostrums, with the view of eradicating a remote (local) disease, situate in a remote (local) organ, and by the slow processes of absorption, sympathy, etc., etc. Experience and common sense teach the contrary, that we should hold to the theory first advanced at this institution with regard to the origin and mode of cure for diseases of the respiratory organs, for it is undeniable that a thorn, or any other foreign substance, may by its presence produce sufficient irritation to destroy the wonted harmony existing in the surrounding tissues, and *set up* an unnatural condition; the which, if the cause be not removed, gradually involves the entire system, converting it from its local character to that of constitutional disease.

In the same manner that a toothache, by its long continuance, so deranges the entire condition in the adjacent parts, that the sufferer seeks to assuage his torment by protecting them from the slightest atmospheric change in which he moves, experiencing as he does an aggravation in the symptoms from every real or imaginary cause. Here the result is produced by the irritation of the nerve going to supply that particular organ, which, meeting with no relief, ulcerates, and the structure it served, decaying, is in a state of consumption.

Now who would think of cramming the innocent stomach—so sensitive in every thing else—with useless drugs and poisons, with the hope of curing a disease characterized by a loss of substance in the organ at fault, and which required the greatest promptitude in direct application?

It is fortunate that a consumption of a tooth can be remedied by extraction, when in due time the general symptoms will disappear before the constitution is involved. But when we have to combat with disease situate in organs so vitally concerned in the welfare of the human organization as the lungs, through which pass and repass the *essential principles*, and the destroying elements to life, it admits of no cure by means of extraction, as is the case with an unimportant molar.

Nevertheless, if we can but reach the seat of a diseased lung by means so beautifully efficacious as the inhalation of cold medicated vapors, which are known and proved to be the only means whereby a cure is more than probable, is not the endeavor rightly directed? Has not the consumptive invalid greater hopes of recovery than by the dangerous and senseless habit of drugging the stomach, thinking thereby to remove, by a fancied constitutional treatment, a local disease primarily begun through deficient nutrition in the air-cells, the general symptoms, from an after-impetus in aggravation, involving the whole constitution?

Do you not comprehend that by removing the disease in precisely the same manner as that disease was contracted, you advocate the most rational and real means possible for your relief?

You know very well the influence of "a cold on the lungs," which, becoming "seated," produces a derangement *tending* toward a disorganization in one form or another; how is it, then, that other organs, *remote* from the lungs, are not diseased likewise? You perceive the *constitution* has *nothing directly* to do with the primary difficulty, as no other organ is complained of at the same time, *until by neglect*, and the *substance* of the lungs is *lost* through *expectoration*, the other organs remote, through sympathy, partake of the efforts to resist disease, but which in their turn yield their retarded functions, which end in organic lesions of their substance.

Thus the *general health* is *lowered* sympathetically through the irritation derived from diseased action *primarily begun in the air-cells of the lungs*, and not from a constitutional preparation or derangement, this latter being the *result* of the progress of disorganization instituted in the manner described.

Certain constitutions are more or less predisposed, and consequently susceptible of certain *extrinsic vitiations* from *exciting causes* going to produce the *germ of disease*, the development of which is reserved for that organ weakest in its physiological *integrity*; but this predisposition and this susceptibility never *furnish* the germ, but embrace it when created by that extrinsic cause working the change amid the tissues of

the organ in which disease is manifested functionally or organically. It is only because of the *adaptness* of the tissues through that susceptibility that they are exposed to myriads of external causes (chemical forces) which, according to the organ most prominently exposed, and manner of contact, takes this or that form of disease.

Diseases prove dangerous and fatal according to the *proneness* in the organs to admit of vitiatory change in their function and the degree of resistance offered by the *vital forces* to keep out the destroyer. Thus it is established that this secondary or constitutional derangement is the result, and not the cause, of a primary disease in the organ at fault, the which, being local in character, should be treated by local remedies.

Thus, when tuberculous matter is the result of an inflamed and thickened mucus membrane, we are enabled, by means of *inhalation*, to attack by coming in at the same door by which it entered, and so distend, expand, and stimulate the air-cells of the lungs as to vitalize the blood and prevent a further formation of the tubercles, restoring them unto perfect health again.

We also enjoin a physical treatment, which consists of gymnastic and athletic exercises proportionate to the patient's strength, which serve to increase the size and expansion of the lungs, as well as impart strength and vigor to the muscular and nervous systems.

We recommend exercise in the open, pure air, bathing, and sleeping in thoroughly ventilated apartments.

The *diet of patients* is chemically selected, and alcohol, properly prepared, is daily administered both internally and externally, these being parts of the medical and physical treatment under peremptory control.

The *case* and the *means* are before you as the objects endeavored to be explained, which, if more generally understood and appreciated by the thousands threatened with any of the diseases of the throat and lungs, consumption would no longer be regarded as incurable.

It is by no *miracle* that such a desirable result is to be effected. It is only by the direct application of remedies acknowledged to be curative, by their inhalation properly and perseveringly, that they prove successful. We implore you, then, not to delay seeking relief until you are of yourself satisfied of the advanced, and perhaps incurable, state of your disease.

Remember that consumption always commences with a "cough," a "cold," a desire to "clear the throat;" to "take breath" even in ordinary exertions; then it develops itself by "sore throat," a "hoarseness," an "increased difficulty in breathing," a "raising of tough, viscid mucus in

the morning," and "loss of flesh and voice," till by involving the bronchial tubes, air-cells, and substance of the lungs, you are a confirmed consumptive.

It is by inhaling certain remedies while in a state of vapor, and of the natural temperature of the surrounding atmosphere, then, that you may hope for relief, for the success that has hitherto attended this process is incontrovertible and incontestible. Thousands have availed themselves of its benefits, and have been cured, and very many thousands have yet to seek and become the living acknowledgments of its victories over this most devastating scourge.

Thus it has been our desire to acquaint you of a *new process*, that of inhalation, for the cure of diseases of the lungs and throat, which, having evidenced the highest success in hospital and private practice, certainly commends itself to the afflicted for their adoption.

It is after much experience by the method of inhalation in thousands of cases of the various diseases to which the respiratory organs are subjected in the manner already described, that it becomes apparent that some attention and much time must have been devoted in examining them in all the details characterizing their pathological condition. Before entering upon the subject of *Tubercular Phthisis*, or *Pulmonary Consumption*, we will relate some of the *ancient plans* or *methods of Medicated Inhalation*.

ANCIENT MODE OF MEDICATED INHALATION.

By the inhalation of various drugs, in a state of vapor, such as iodine, chlorine, conii, cicuta opium, foxglove, deadly nightshade, stinkweed, ipecac, prussic acid, ether, copavia, creosote, prussian blue, camphor, assafoetida, vinegar, tar, turpentine, the various roots and herbs, etc., etc., prepared by infusion in hot water, the ancients attempted the cure of pulmonary diseases, and their experiments proved at best palliative, and not curative. All these remedies have each in their turn been extolled by those luminaries, *Boerhaave, Van Swieten, Laennec, Gannal, Scudamore, Mudge, Crichton, Thomas, Ramadge, Corrigan*, and many others in Europe; while *Rush, Coxe, Eberle*, and others of our own country, had the faith to recommend them as curative in consumption. Nevertheless the agents above named, although having been thoroughly tested, and abandoned as worthless by experienced practitioners, are still confined to empirics and impostors, who contrive by means of a species of *newspaper mouthing* to draw the unsuspecting and the ignorant into their clutches.

But it is fair that we should state a fact in connection with the subject of Inhalation, and that is, none of the drugs, balsams, roots, herbs, extracts, spirits, and ethers above enumerated, were tried during a total repudiation in the way of administering them into the stomach, when some of them *might* under the circumstance have proved in a measure beneficial. But, "to sum up," their use hitherto, having signally failed in accomplishing the purposes for which they were intended, we unhesitatingly pronounce against them and their advocates, for the reason that they have thrown no *light* as to their mode of action, have done no good in any case submitted to their influences, and dissatisfied the world as to their being worthy of a moment's consideration.

THEORY OF TUBERCULAR PHTHISIS OR CONSUMPTION.

It has long been the opinion of the medical profession, that Phthisis is from the beginning a constitutional affection, that tuberculous matter was thus engendered and deposited in the air-cells owing to a previously morbid ingredient in the blood. True, the blood is materially changed in

some of its elements, because we notice an increased amount of albumen and thin fibrin, while the red globules are diminished—but we claim that these phenomena are merely secondary, and not primary. It is easily perceived that the due amount of vital air (oxygen) is not entertained in sufficient quantities to purify the blood, because the air-cells are partially closed or obliterated to its reception during respiration, that thus the whole system becomes vitiated, and in a corresponding manner retains the carbon or life-destroying ingredient.

Phthisis, then, is a *local disease*, first manifested in the air-cells, causing the blood to become overcharged with the non-vitalizing ingredient through secondary affection, that blood to be given off in a semi-fluid state from the vessels into and around the air-cells, and, by solidifying, forms the tuberculous matter, and even ulceration, producing certain well-known changes.

We contend that the *vital principle*, or power of life, *acts to preserve the living solids* against the *consuming* agency of oxygen, that when extensive tubercular deposit or ulceration has occurred, the vital principle is *reduced*, and the destructive influence of the oxygen not being *sufficiently resisted*, the *blood and the tissues* fall a prey to the work of disorganization, characterized by the rapid breaking down of the *inherent forces*, the *breathing* becoming *quicker*, the *blood* more *florid* and *thick*, and the whole body *consenting*, as it were, to *deterioration* and *waste*. These are the most prominent changes noticed in genuine *Phthisis Pulmonalis*.

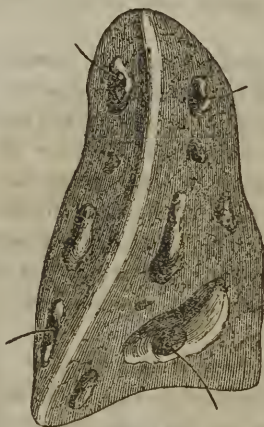
How, then, are we to prevent this waste of substance? It must be apparent that, if we are enabled to supply the needful material for combustion in a volatile form into the lungs, for which oxygen shall have a greater affinity than for the tissues, we shall stay the progress of this disease.

We have stated that tubercles in the lungs are the immediate cause of Consumption, that their deposit occurs in the air-cells or substance of the lungs, in either case filling up those cavities, and, by their obliteration, prevent the ingress of atmospheric air. The disease generally commences at the upper part of the lungs, and from that point extends slowly, and oftentimes with great rapidity, throughout the entire structure of one, if not both organs. The number of the deposits varies in different individuals; their appearance is of a whitish or yellowish color, their feel is that of a hard, unyielding kernel, and they are distributed through the soft and pliable substance of the lungs. Now these deposits of matter undergo certain changes, and occupy in some cases but a few

weeks or months, in others many years. They commence by softening at the center, and after inflaming the substance, form an abscess; the matter gradually insinuates itself into a bronchial tube, when, from the irritation occasioned by its presence, it is coughed up and expectorated.

It is here that the disease should be checked in order to prevent the enlargement of the abscesses, and the further development of new ones, for these tubercles serve to destroy the substance of the lungs by precisely the same process that a thorn or a nail driven into the flesh would, by its mechanical irritation, and consequent inflammation and ulceration, break down and destroy it.

Here we show you *cavities* of various sizes in the substance of a portion of lung, which were occasioned by the abscesses formed by the softening of tubercles.



The bristles emerging from the cavities show how the latter communicate with the bronchial tubes, and so discharge the matter and blood, thence to be conveyed through the medium of the windpipe, to be expectorated by the mouth.

These abscesses eat away the solid textures of the lungs, just as an ulcer situate external to the body destroys the flesh about it, thus growing in magnitude, till by its unchecked march the entire part decays and is sloughed away.

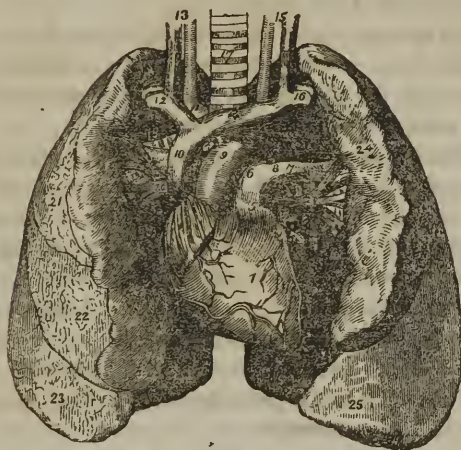
But before proceeding farther in this endeavor to explain the nature and causes of Phthisis Pulmonalis, we will describe the anatomical arrangement of the lungs, in so far as it may serve to illustrate their mechanism, and the science of the functions they are called upon to perform in the economy of man.

The organs of respiration consist of the *lungs* (within the chest) and the *windpipe*, which conveys the air *to* and *from* the lungs. The mouth and the passages of the nose terminate in one common cavity, "the throat," which is seen on looking *into* the mouth when the tongue is held down, below and back of the *arch* or curtain of the palate. From the center of the palate a little prominence is observed suspended, pointing down toward the root of the tongue, called the "uvula." On either side of the throat, just behind the curtain of the palate, is a gland called "Tonsil," which opens into the cavity of the mouth by several large excretory ducts.

The *lungs* are two spongy and vascular organs, situate within and on either side of the chest. They are divided and subdivided into lobes and lobules, whose form and dimensions are not always easily determined.

Here you have illustrated the

ORGANS OF RESPIRATION.



Explanation.—1. The heart. 9. The aorta, the commencement of the great vessel of the heart, which, after giving off in its course innumerable branches, circulates the pure blood in every organ, muscle, bone, etc., etc., throughout the body. 5. The commencement of the pulmonary or lung artery conveying the venous blood from the right ventricle to both lungs. 6. The point at which the pulmonary artery separates into two branches, the one going to the right lung, and the other going to the left lung. 7. The branch to the left lung. 10. The vena cava descendens, conveying impure blood from the head and upper extremities. 15. The external vessel is the left jugular vein—the internal, the left carotid artery. 17. Is the windpipe, which separates into two branches termed bronchia—one going to the right lung, the other to the left lung. 21. The superior lobe of the right lung. 22. The middle lobe. 23. The inferior lobe. 24. Superior lobe of the left lung. 25. The inferior lobe

It is by a careful examination of a lobule that we find it formed of a spongy tissue, consisting of numerous small red circles intimately communicating with each other, and surrounded by a cellular membrane which separates the adjoining lobes.

The number of lobes in the right lung is three ; that of the left lung, two.

Into each lobule enters one of the divisions of the *bronchia*, which latter diverges from the windpipe like the prongs of a fork, and one of the pulmonary arteries which distributes itself in the body of the lobule.

The surface of the lungs is covered with a membrane called the *pleura*, which also lines the entire cavity of the chest.

It is this membrane, when inflamed and adhered in some of its extent, that produces the well-known symptoms in *pleurisy*, and its structure and functions are similar to those of the lining membrane of the abdomen for the protection of the bowels.

The lungs fill up a great part of the cavity of the chest, enlarging and contracting with it, at every inspiration and expiration, through their communication with the atmosphere breathed by the windpipe, and the larynx, which constitutes the organ of voice.

It is not difficult to appreciate the quantity of oxygen consumed by an adult in twenty-four hours, when we have the means of knowing the quantity of air respired in this time. According to Lavoisier and Sir Humphrey Davy, thirty-two cubic inches are consumed in a minute, which gives for twenty-four hours 46,037 cubic inches. Neither is it difficult to determine the quantity of carbonic acid that passes out of the lungs in the same time, since it nearly represents the volume of oxygen that disappears. Dr. Thompson values it at 40,000 cubic inches. Now this quantity of carbonic acid represents nearly twelve ounces avoirdupois of carbon, the fuel for combustion.

We are informed of the degree of alteration that the air undergoes in our lungs by a feeling which inclines us to renew it ; though this is scarcely sensible in ordinary respiration, because we always continue it, it nevertheless becomes very painful if we do not satisfy it quickly ; carried to this degree, it is accompanied with anxiety and fear, an instinctive warning of the importance of respiration.

While the air contained in the lungs is thus modified in its physical and chemical properties, the venous blood traverses the ramifications of the pulmonary artery, of which the tissue of the lobules of the lungs is partly formed ; it passes into the radicles of the pulmonary veins, and

very soon into these veins themselves ; but in passing from the one to the other it changes its nature from venous to arterial blood.

Now let us inquire what must occur after the tubercles have become largely deposited, or ulceration has commenced ?

We stated before that *vital power* acts to preserve the living solids against the excessive action of oxygen, thereby preventing their too rapid destruction. But an extensive deposit of tubercles, or ulceration of the lungs, reduces the vital power, and oxygen being no longer resisted, makes havoc with the solids and the blood. Hence a rapid decomposition takes place ; the breathing becomes quicker ; the blood impoverished and of a florid color ; and the patient, from continued suffering through irritation, undergoes a consumption of the flesh and strength.

This fact is fully exemplified if we but look into the prisons, hospitals, churches, places of amusements, in close or ill-ventilated sleeping apartments, in damp cellars, in the counting-houses, and wherever an uninterrupted supply of pure air is impossible or neglected, the consumptive process is constantly manifested. Tuberculous deposit may not, it may never, take place ; but the predisposition is certainly being established, and in a large share of the cases exposed to its influence the disease is sooner or later developed, and the first great source of scrofulous or tuberculous disease is to be found in insufficient or impure air.

Let the prisons tell the tale ! It is an authenticated fact, that a majority of deaths occurring within their walls is the result of consumption, and even in many of those who die from other diseases are tuberculous deposits found to exist in their lungs and liver, and all owing to a confined and impure atmosphere. And the causes of consumption are around us, go which way we will, for they threaten us everywhere, and under almost numberless forms.

Consumption is either hereditary or acquired, just as its causes are manifested in their transmission from parents, or from a departure from the natural laws governing the existing conditions during life.

Hereditary transmission of qualities and the results are fixed laws governing both animal and vegetable kingdoms. For instance : in the human species, we know it to be exemplified in the physical as well as mental attributes, in the propagation of health and of disease. "Good springs from good, and bad also," and *vice versa*.

The *predisposition* to consumption may be overcome, if, by an early commencement, thoroughly and judiciously carried out, a system of *physical training* be instituted : active pursuits in the pure open air, great cleanliness, regular habits, exercising the chest, full and lengthy respira-

tions—these will be the means of breaking the debilitating tendencies, and an early decline full of misery, exchanged for a lengthy life of vigor, health, and usefulness.

With regard to the popular question, "Have consumptives a right to offspring?" we venture the opinion that, while we do not discredit the right of persons having the predisposition to consumption to marry, yet we would urge the propriety of their observing *great prudence* in all their conjugal relations.

Of the *diseases which predispose to pulmonary consumption*, the first necessary to be named is *Bronchitis*, which is an inflammation of the *mucus membrane* of the throat, windpipe, and the numerous tubes which convey the air to and from the lungs (which membrane also lines the cavities of the *nostrils*), an inflammation of the former producing the well-known "common cold," "cold in the head," "catarrh," and in the latter "a cold on the lungs;" but when the inflammation is confined to the throat, *laryngitis*—"sore throat,"—all of which require much practical information, which can only be derived by a just understanding as to the manner in which the several symptoms enumerated may lay the *foundation as causes* for consumption. Inasmuch as a *cough is but a symptom* of some existing difficulty, so ought it to remind the individual of the *danger that lurks within*, especially when he remembers that these tendencies to repeated attacks, although for a time confined to the precincts of the head and throat, usually "*travel down*" into the lungs, there depositing the *results* of the mischief begun, as an indication of the *existence of tubercles, not yet developed in any other organ*.

In the detection of the havoc these very symptoms have created, many plans have been "set up," and very much has been written as to the value of *auscultation* and *percussion* as reliable tests. We doubt not that when they are practically understood in connection with the ordinary marks of the several diseases, they are of utility; but when attempted by inexperienced persons who ingeniously flourish the stethoscope in order to *impress* the patient with the profundity of their wisdom, and who would know as much by examining the pavement, these admirable contrivances fall to the ground. There are a goodly number of creatures round who know about as much of tubercular consumption as the forgotten dead. But this disease may be the *result of fistula*, diabetes, and the eruptive fevers, as the result of imperfect cures in allowing morbid matters to gravitate from the surface of the body to some one internal secretory organ weakest in its integrity. How important, then, that when under the influence of even one of the many causes enumerated,

we guard against the admission of others so active in the production of consumption? We believe that tubercular consumption is a *local disease*, requiring *local* remedies, that the theory of its being a *general disease*, or a disease derived from purely *constitutional causes*, is erroneous, which theory is, owing to a kind of practice peculiar to the ancients, and the modern wiseacres, namely: the administering of drugs into the human stomach for the cure of a disease local in its origin, local in its situation, and requiring local treatment.

OF THE MORTALITY IN CONSUMPTION.

FROM the frightful statistics presented in the weekly bills of mortality of the different cities throughout the United States, it will be perceived that an imperative duty demands that society, and the medical men it employs, should awaken to the dangers of an enemy that robs it of thousands of the brave and the good, the old and the young, the lovely and the depraved, the rich and the poor, without respect to persons, sweeping them before its relentless sway as the standing grain falls before the scythe.

And this continues unchecked year after year, encircling the whole earth with the "funeral train," overshadowing its fair face with the lamentations of the mourning of despair. There is no appeal, for the dead can not hear, and the living will not, and man, with streaming eyes and a breaking heart, watches the remaining flower withering in beauty—in his turn to be gathered, too.

The number of deaths from consumption annually in the whole population of those cities, then, is found to be:

Boston.....	1 in 236	Baltimore.....	1 in 290
New York.....	1 " 267	Charleston	1 " 426

The ratio of consumptive mortality compared with other diseases in those same cities is:

Boston during a period of five years	1 in 6.6
New York " " four "	1 " 7.2
Baltimore " " ten "	1 " 5.4
Charleston " " five "	1 " 6.9

—and the number of deaths from pulmonary consumption in the city of New York was:

Among Males in 1848	946
“ Females “	923—1,869
“ Males in 1850	982
“ Females “	949—1,931
Total	3,800
In London the ratio was	1 in 262
And through England it was.....	4 “ 1,000

—being about one fifth of the whole number of deaths by consumption.

In 1688, Thomas Sydenham, who diligently observed the progress of diseases, was of the opinion that one fifth of the human family died from Phthisis Pulmonalis

It seems with regard to the influences going to promote its fatality, that it is enhanced by a moist atmosphere in a middle latitude, in localities such as in the Northern, Middle, and Eastern States—and that the disease is comparatively rare in very hot and very cold districts of countries.

Large bodies of fresh water, along the shores of inland lakes, contribute more in the promotion of deaths from consumption than do neighborhoods of salt water, as along the Atlantic coast.

Dr. Swett, author of an admirable and standard work on “Diseases of the Chest,” says that, in London the period of greatest frequency of deaths from consumption is from 25 to 35 years; the second period, from 15 to 25 years; third period, from 35 to 45 years; fourth period, from 45 to 55 years; fifth period, from 5 to 15 years; sixth period, from 55 to 65 years; seventh period, under 5 years.

In Paris the first period of greatest frequency is from 20 to 30 years; second period, from 30 to 40 years; third period, from 10 to 20 years; fourth period, from 40 to 50 years; fifth period, from 50 to 60 years; sixth period, under 10 years; seventh period, from 60 to 70 years.

Thus it will be seen the fearful mortality from consumption in the different countries, and at different ages, arising, it may be presumed, from *diverse* influences through *diverse* occupations, among the most prominent of which are inhalations of mineral and vegetable emanations, and of various kinds of dust, a sedentary life, stooping postures, wounds of the chest, and its contents, etc., while the influences *unfavorable* to the development of the disease are: an active life in the open air, exercise of the voice, a generous but properly prepared diet, a naturally cheerful temperament and disposition, and great regularity in mental and physical habits.

With regard to *consumption* being a contagious disease, we do not

hesitate in offering the opinion that it is in no wise capable of communication from one person to another through ordinary intercourse, by attention or association with the sick, as is the case with small-pox and other eruptive fevers, for microscopical investigations do not warrant a belief in the theory that contagious matter exists in the air exhaled from tuberculous lungs, which, however, it is not contended, is as healthy as is the atmospheric air breathed under ordinary circumstances. With as much reason might a person suffering from common catarrh be suspected of communicating his malady to those around him. Nevertheless an analogous affection through *pure sympathy* might be contracted under extraordinary circumstances by one whose system was every way predisposed to changes in the equilibrium existing among the life-forces, which becoming abnormally influenced, might render some particular organ weakest in the body, further disposed and capable of taking up with a condition favorable to secretory alteration, even unto a tuberculous deposit.

In such cases it is a common supposition that the patient actually contracted, or caught, through contagion, the same disease to which he had been last exposed, thus setting at defiance the definition of the word which signifies *to meet, or touch each other*. It is more reasonable to suspect the disease to have been contracted through *infection* from a vitiated atmosphere, thus preparing the delicate air-cells for that great change effecting tuberculous deposit in the lungs, but never from any actual contact of tuberculous matters exhaled from the lungs. There must be a *primary preparation* instituted and set up in the air-cells, in order to develop that *disposition to structural change necessary for the formation of tuberculous matter*.

11

Persons wishing to escape consumption, and the diseases analogous to it, have only to observe strictly the general rules governing health : taking proper daily exercise in the open air, expanding the chest by full inspirations, attending to cleanliness and diet, etc., etc., to secure the guarantee, not only against these, but every other ill that flesh is heir to. These means may be justly considered among the most important of medical investigations for the prevention and cure of many frequent and generally fatal diseases which afflict the human family ; and as receiving the sanction of the best endowed minds in the profession, they merit a full and fair trial, when disease, in her protean shape, threatens an attack upon the most vital organs of the body, and which almost bids defiance in her destructive career.

Painful is the admission that among the diseases considered as the

opprobria-medicinæ, none are more generally invincible than those peculiar to the respiratory organs. In giving the *ratio* of mortality from consumption in the different cities and countries in this and the Eastern Hemisphere, we but illustrate that, at the present time, about one fourth is the result of Pulmonary Consumption, the which might be to a very large extent obviated, did but the people themselves institute and carry out, as a duty of most vital importance, the laws absolutely necessary for the preservation of health and the consequent production of happiness to mankind.

With these remarks upon the mortality of consumption, let us inquire into the

SYMPTOMS OF CONSUMPTION,

which are chiefly characterized by two very appreciable periods : firstly, that from the initiatory or first manifest cough, together with an unusual sensation within the chest, to the softening of tubercles in the lungs ; secondly, from the commencement of this tubercular change to the termination of life itself. Some authors speak of *three* periods—the first of which they designate as that in which there is *being* deposited the tuberculous matter in the lungs, to which a fourth, as prefixing the previous periods, might be added, viz., that during which the system is *undergoing the changes that prepare* it for the deposit.

Thus the entire *four stages* would range as follows : The *preparatory ; that of deposit ; that of softening*, etc ; that of breaking down of the lungs, ending in dissolution. However, keeping these *four stages* in view, although the observance of others than *the two first given* is not strictly enjoined, still they may serve, perhaps, as necessary to illustrate the progress of the disease, which, in the “early work begun,” too often escapes the notice of the patient and friends, the first *faint*, but *meaning* symptom which denotes the existence of tubercles already in the air-cells, the which, if observable by an intelligent physician, teaches him the destruction threatening the very *substance of the lungs*, and the inevitable *issue* if not arrested *before the constitution is involved*.

It is necessary that we be aroused to a proper sense of danger before the *last stage* of the disease is “on us” with its unmistakable *signs*—the significant hectic flush suffusing the cheek with almost angel-beauty ; cough constant and shattering the form ; fever raging and harrowing like a demon ; enervating night-sweats ; the struggles for breath, for “dear life,” filling up the humiliating picture of a slow but sure decay, till we are forced to acknowledge, alas ! too late, the enemy, and without the power to relieve and to save !

And consumption is always insidious, developing its course more or less rapid, according to the susceptibilities in constitution and surrounding circumstances in different patients; therefore a careful history of the symptoms marking each case is the only and sure guide to the kind of treatment necessary for its alleviation and cure.

The lungs fill up in certain parts with the tuberculated matter which is deposited in layers, forming masses resembling albumen, but which becoming more hard and yellow, takes on the consistency of cheese, and by its presence produces (mechanically) great irritation and obstruction (from a partial closure of the air-cells) to the respiration, gradually involving the whole structure of the lungs and constitution, and the substance of the lungs being once destroyed by the ulceration giving rise to that which effected it, can never be restored again.

Yet much may be done by a timely interference with the formation of tubercles, through a knowledge of the first symptoms indicating respiratory derangements, which are productive of the primary disease begun in the air-cells, and which afterward produce the constitutional derangements already enumerated.

We will conclude the subject by giving the routine of symptoms in an ordinary case of pulmonary disease.

The patient, a young girl, just in the zenith of earthly happiness; presenting all the appreciable harmonies characteristic of health; envied and beloved by all who know her, those who watch the graceful nature they deem most perfect in organization and morale—undergoes a sudden change, which at first excites not the least suspicion of the poison which, perhaps, has long been preparing her for the coffin and the shroud, and they console her that the change is owing to having taken “a slight cold,” “a cough,” “from sleeping in a damp room,” or from “damp sheets,” maybe “from a change in the weather,” “wet feet,” or an hundred other reasons assigned as the cause, serve for a little to lull her fears to repose. Anon, with one accord, they notice that her fingers are more tapering—long, and the skin is transparent and pearly, showing the blue veins through the delicate texture; a chilliness of frequent occurrence, even though sitting “over the fire,” ensues; loss of strength; a trembling in the knees; a sense of coldness in the breast and about the shoulders; a peculiar expression of countenance; a brightness in the eye; a quickness and aptitude which give to her every action an unearthly association; but then these symptoms sometimes are the result of *other conditions*, and occasion no alarm. Anon, certain symptoms “grow” and appear to become more distinct, and now that we “look into things,”

we are forced to sympathize, you know, Hitherto she has had "only a cough, which was unattended with pain or uneasiness till now. Ah! the symptoms increase in their vigor, but still she of herself pays no *real* regard to them; in fact, she *can not comprehend* the difficulty, the warning announced within; and the disease steals on, quietly devouring her "very vitals," till at last she begins to think that "something's wrong," and "must be attended to." Soon the expectoration takes place, increasing in violence and in quantity, getting thicker, and yellower or greenish in color. Pains afflict the frail chest, and a little blood *streaks* or *spots* the expectoration. Matters are getting more and more complicated now, for the disease is fairly at work, which makes the heart throb and sicken at the thought of consumption being the issue of these hitherto unnoticed "signs!" and her system suffers *mentally* and *physically*, for tubercles are causing such "irritation" and "heat" somewhere in the lungs, and laying the "gravestone" by softening at their center. 'The poor girl! Now, she "tires of every thing," for every thing helps to make her unhappy and more ethereal. Her appetite is "nothing," and she begins to loathe even the choicest and rarest viands, alternate with the craving for even the grossest food; the "tone of her system" is destroyed; her digestion is disordered; the bowels are irregular—now constipated, now relaxed. Her cheeks burn with an unnatural fierceness; the fever consumes with a remorseless fire; and the night-sweats leave her so reduced with "pure debility" that she excites the most agonizing solicitude for her safety from the breaking hearts around her.

Now, her respiration is more and more difficult—there is a positive drowsiness, and now and then a lameness; every thing hurries her breathing, and with an aching head and a breaking heart she faints! Yes, she is prostrated from the conviction that she now might be laboring under a disease which is conveying her by *easy stages* to her future home, thus adding another victim to the vast *dead list* claimed by death as his own.

There is another *very dangerous symptom* to which we would call your notice:

HEMORRHAGE, or *bleeding from the lungs*. Bleeding from either of the lungs is of very frequent occurrence as a fearful symptom of the existence of tubercles in the lungs. It more certainly tells the tale—how weakened and reduced are the tissues of which they are composed, and how unmistakable in its character when once it appears as the dreaded monitor of the havoc within and about!

Inasmuch that *spitting of blood* is the forerunner of a functional dis-

turbance somewhere, so a hemorrhage from the lungs is the *harbinger* of *consumption*.

Although many who die of consumption never bleed from the lungs, the tubercles having softened, yet it is certain that a person can not have a true hemorrhage from the lungs without the co-existence of tubercles thickly studding their structure.

Hemorrhage may be the result of interrupted functions with the female generative organs, and even then the chances for recovery are extremely small.

It is only in the *earlier stages of hemorrhage* that the opportunity for subduing the disease is offered. Remember, there is no *cure* for consumption *after it is confirmed*, and the whole system so shattered and reduced by its inroads, as to render any earthly remedy of no avail; then, *hope abandoned*, what else can the victim do but to

“Wrap himself in the drapery of his couch,
And lay down to pleasant dreams?”

Before entering upon an explanation of the various appliances made use of as instrumental for the cure of diseases of the lungs and throat, we will offer a few words with regard to

INFANTILE CONSUMPTION.

It is estimated that there is no period of human life during which consumption is so prevalent and so fatal as from *three to sixteen years*, and that more than *one half* of the whole amount of children who die per annum, perish from consumption of either of the *lungs or other organs*, the offspring of our habits or errors in life.

In some instances tubercles are found in the infant at birth, the mother having suffered from confirmed consumption. Why this should be so is no mystery when we reflect with a knowledge derived from an *incontestible fact* based upon an *incontrovertible law* that the mother's organization, being wholly contaminated with the disease, *while within exists the future being*, the which after its birth is suckled at breasts almost rotten with the *poison*, must give rise to tubercles, and it is easily understood how important a relation, yet destructive in result, is the connection and function to the innocent recipient of *maternal love and care*.

That a parent, not having the disease under the same circumstances, can convey consumption to her offspring is untrue, for the disease must exist before it can be transmitted, and where nothing is, nothing can emanate.

It is through the operation of causes independent of its parentage that a child born from a healthy source can have the disease, as is the case with many *eruptive* and *inflammatory fevers*.

The causes which this excess of mortality in children over adults are owing to well-known discrepancies, the result of a *human* development: an abominably cruel and rotten pride governing mothers, and which devastate and blight the conditions of fathers; *among the poor*, an impure atmosphere; deprivation of the blessed light of heaven, ill-ventilated rooms, down, down in cellars reeking with "dampness and the mold;" want of cleanliness, which alone generates impurities, vitiating the air; improper and insufficient food (?) and clothing; all going to "keep back" that *development so vitally necessary for the prevention* of the ingress of an enemy so detrimental and blighting to the organization; while *among the rich*, who are operated upon by no such humiliating conditions, the causes are equally efficacious, if not more so, in giving rise to consumption, enervating by confinement in closely-hot and gaseous apartments, food consisting of "every thing that the market affords," yes, every thing that the cook-shop, the baker's shop, and the confectioner's shop to satiety, before the digestion is firmly established, thus giving rise to derangements of every other organ of an, as yet, undeveloped economy; and clothing at once immodest and incompatible with the comforts required for their tender organization. These are the *causes* which are the *result* of an *evil fashion* which impudently stalks around as criterion, producing the very catastrophe we dread.

With children the symptoms of consumption do not as actively manifest as with adults, but the knowledge of their existence as the issue of tuberculous deposit is evident.

We do not like those *eruptions* covering the *face* and behind the *ears*; those *bloated* and *cracked* lips; those *pustules* on the *eyelids*; that *constant* and *insidious* wasting of the *flesh*; that *intolerance* of the *light*; and that listlessness and apathy which unerringly point to the existence of tubercles in the lungs as their *cause*, and the cause of death.

Of the *mean duration of consumption*, it is estimated to be throughout the civilized world from twenty-two to thirty-four months. Some cases end after a duration of only three weeks, while others equally marked, and apparently less promising, tug out a fifty-five years round of duration.

However, it is very certain that the disease within the last thirty-one years has run its course much sooner by two thirds than previously, and to attempt a solution of these vagaries in the duration of pulmonary dis-

eases would be out of place in this estimate, inasmuch as we wish simply to call attention to them as phenomenal to the investigation.

The *means for distinguishing consumption* from those diseases resembling it in many of their symptoms is a matter of vast importance, whether the patient has actually the disease indicating the deposit of tubercles in the lungs, or whether his affection is merely confined to the *throat*, or some other organ of the body.

Now there are various diseases, viz.: *Throat-ail*, or chronic sore-throat; *Bronchitis*, or inflammation of the bronchial tube in some of its extent; *Tonsillitis*, or inflammation and enlargement of the tonsils; *Asthma*, a spasmodic affection of the air-cells, *Pleuritis*, or inflammation of the pleurisy; or *Rheumatism*; all of which, to say nothing of the numerous complaints to which women under different circumstances are liable, might easily be confounded for those of the lungs, a *real knowledge* of which in any case is of untold importance in the endeavor to treat with the assurance of an understanding that produces confidence in the physician, and the hope of a cure in the patient.

It is the duty of such, having cases involving much doubt, to cause them to seek the information from a more reliable source, for it requires much experience, founded upon a large and thorough practice, in order to be able to *diagnose* a disease to the welfare of the patient, and consequent reputation of themselves.

To lay down "set rules" which shall serve as an infallible guide to the *uneducated in diagnosis* of diseases, would be madness without method.

THE REMEDIES USED.

WE have instituted for the cure of pulmonary complaints certain vapors, viz.: *Anodyne*, *Expectorant*, *Astringent*, *Alterative*, *Asthmatic*, *Antispasmodic*, etc., etc., each of which is *prepared in kind and strength* according to the several indications to be fulfilled in *particular forms* and *stages* of the disease, and which act as a solvent for tuberculous matter deposited in the lungs, besides contributing *carbon, or fuel*, to supply the demands of the system. And to give *special directions* for the use of these vapors, except in the detailment of cases offered as testimonial to the fact, would not only be impossible, but unnecessary in a

mere pamphlet of this size. It is sufficient that we have ever found *our remedies reliably potent and effectual for the purposes they were intended, and that they are our chief and only reliance in the cure of diseases of the respiratory organs.*

Thus all chronic inflammations and ulcerations of the *throat proper, the windpipe, and other air-passages*, are treated by these vapors, and in connection with the *uses of suitable showering syringes.* These latter prove far superior to the *sponge and whalebone* plan, since they are the medium of safe conveyance of remedies without the liability of choking the passages, exciting spasm and almost strangulation. Not that the *topical application* of remedies alone, although sometimes *highly necessary*, will effect a cure, but that they materially aid the *healing power of nature*, which some have the assurance to infer is the *great and only reliance* of the intelligent physician, *without regard to those PRINCIPLES* which common sense is struggling to maintain.

That *our plan* of treatment is not merely *routine* will be easily seen. It applies remedies which are *adapted* to the *particular* disease presented for investigation.

We also insist, in all cases, on *particular hygienic measures*, such as EXERCISE, PURE AIR, DIET, BATHING, etc., RULES for which are printed on cards, and furnished as *standard guides to patients* under treatment.

These, taken in connection, prove valuable *auxiliaries* in arresting the *progress* of diseases of the lungs and throat, restoring the invalid to a state of *permanent health.*

Having thus laid before you this brief recital of a *mode* of practice for the cure of the various diseases of the respiratory apparatus, as alone invented and adopted by this institution, we would, before describing the manner for *administering the vapors*, remark that it is a method of practice having for its sole reliance remedies that act *in harmony with the Physiological and Natural laws*, and that a greater success has attended it than can be ascribed to that of any previous treatment, while it is undeniably true that although it may not cure in *unfavorable and hopeless cases*, yet it is *pre-eminently palliative*, proving all that *sound reason* could expect.

To recapitulate: In order to *prevent a further progress* of the tuberculous deposit in the lungs, we rely upon the administration of the *cold medicated vapors*, in order to *increase the capacity* of and *free the air-cells* of the lungs by their mechanical *resistance*, effecting *expansion, stimulation, and invigoration*, with the *ADDITIONAL GOOD RESULTING* from a *PROPERLY SELECTED and GENEROUS DIET, ACTIVE EXERCISE, PURE, OPEN*

AIR for the ECONOMY, and the *most* CARBON or FUEL for the ENEMY TO FEED ON, instead of the lungs, thus SUPPORTING by "MAKING" up *what has been ruthlessly wasted under disease.*

METHOD OF USING THE VAPORS BY INHALATION.

THE leading principle of the inhalation of remedial agents is *support to the constitution* during organic disease or functional derangements of vital organs, *not* its further *reduction* by administering incompatible drugs and patent medicines into the innocent stomach; the *expectant* plan for relief from *shoulder-braces*; of the vapors derived from a solution of gums, balsams, jellies, sugar, and herbs in hot water, and inspired through a tea-kettle spout, and without the slightest knowledge of the causes producing the disease, or the ghost of a principle to go by, as was the custom among the ancients and heathen.

After having detected the kind of disease by means of *auscultation*, *percussion*, and the history of its duration, the age, sex, temperament, occupation, and constitutional peculiarities of the patient, we are enabled to prescribe the proper and most effectual remedies.

In that examination we make use of a *valuable and unerring medium*—CAMMANN'S STETHOSCOPE, which, from the fact of its affording *double powers* in forming a diagnosis in diseases of the respiratory organs, we



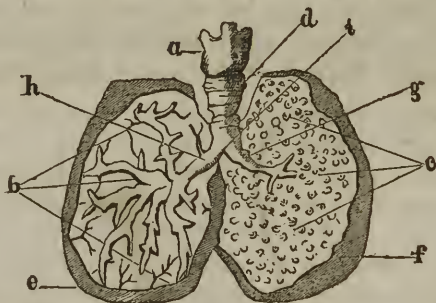
prefer to all other instruments intended for like purposes. On the preceding page we have illustrated CAMMANN'S STETHOSCOPE (a) and the COMMON STETHOSCOPE (b).

Both of these instruments are used in detecting diseases of the lungs and throat, but from the superiority of *Camman's* (a) over the *common flexible stethoscope* (b) we invariably trust to its revelations, because it transmits the sounds to both ears, which are more distinct than when received by one ear alone. The effect is as if the sound was more direct and loud. And in cases where the patient is much emaciated, the smaller funnel (c) is attached instead of the larger one shown in (a), which is more easily adapted to the inequalities in the surface of the chest.

The common stethoscope is more applicable above and below the collar-bone; and about the windpipe and larynx, or vocal box. Now, the sounds emitted through these instruments are called *physical signs*, a true understandment of which requires much study and practice in order to arrive at their true indications as to the condition of the organs under investigation.

The cut below illustrates the *bronchial tubes*, *air-cells*, *windpipe*, and *vocal apparatus* of the lungs.

BRONCHIAL TUBES AND AIR-CELLS.



Explanation.—(a) the *larynx*, situate at the root of the tongue and commencement of the *windpipe*; (b) the *bronchial tubes*, distributed through the right lung, and terminating in the air-cells, in which tuberculous matter is deposited during disease; (c) the air-cells; (d) the *windpipe*, which divides at (i) into the right and left bronchial tubes; (e) the right lung; (f) the left lung; (g) the left bronchial tube; (h) the right bronchial tube.

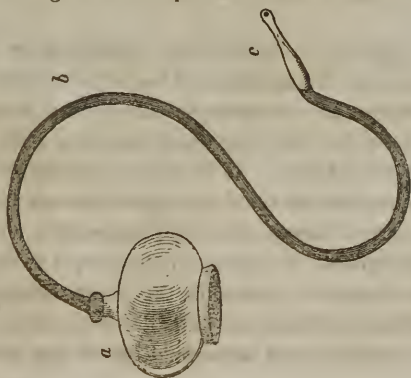
Thus the air in passing into and out of the bronchial tubes and their extremities, the air-cells, produces peculiar sounds, which are in accordance with, and are changed by, the state or progress of dis-

ease. Now by these changes in the sounds, together with the *rational symptoms*, we are enabled to define more clearly the *different forms of disease* than can be effected by any other known process, and because we *compare the sounds evinced on the two sides of the chest*, which easily demonstrate in which organ exists the disease. Besides, by means of *percussion* we bring out the *dull or hollow sounds*, which at once determine the portion of the organ diseased.

These examinations are more particularly adapted to the *first three stages* of consumption, the which, if the disease advances an appreciable step, forbids the hope of cure. In the *fourth* or last stage the physical and rational signs developed are conclusive of the dreadful ravage the disease has already made. The constitutional vigor, if any, appears no longer to resist the progress of a disease which is become a work of rapid decay within, and the poor invalid sees for himself the way, which is the tomb—that strong house to which he knows, also, that those he leaves behind must follow anon.

Poor soul! what has been thy fate? Hast thou been trifled with under thy affliction? Hath there been no ministering angel, no good Samaritan, at hand? No one to attempt an alleviation of thy sufferings? Didst raise thine eyes in the darkness, and cry, Help! when there was no help? Alas, poor borrowed hope! thy lamp of life did but flicker an instant ere it went out forever!

To return. After making the necessary examinations, already explained, we proceed to prescribe the *remedies* which the *character and stage of the disease* demand, and which are administered by means of the Inhaler, thus bringing them into the lungs themselves, and in direct contact with the seeds of disease, and the surfaces influenced by their presence. The design below represents the INHALER.



It consists of an elastic tube (*b*) connected with a glass globe (*a*), which contains a fine sponge impregnated with the desired vapor. The latter, when inhaled, enters into the bronchial tubes and the myriads of air-cells of the lungs, combined with the ordinary atmosphere, and at its natural temperature. Thus a certain and satisfactory benefit results, surpassing any other known process for the administration of remedial agents into the lungs, for the cure of the numerous diseases to which they are liable.

The Inhaler described is new in principle and in detail, and its chief excellence consists in a fact hitherto unknown to the world—that the vapors inhaled through it enter the lungs at the same temperature as is the surrounding atmospheric air, by the *natural process of breathing*, in addition to the *stimulating, soothing, and healing properties* they impart.

Having briefly detailed the causes, symptoms, and means of cure for pulmonary consumption, we will as briefly recount the same characteristics for *bronchitis, catarrh, laryngitis, tonsilitis, asthma*, also with regard to the *hygienic rules* necessary for the observance of patients under treatment.

Bronchitis, or “cold in the lungs,” is an inflammation of the lining membrane of the numerous tubes within the lungs, and affecting persons mostly during the winter and spring months.

When we consider that this membrane is continuous with the windpipe, mouth, and nostrils, and that it is extremely liable to inflammation from sudden changes in the air, we can imagine the reason for the vast number of cases of bronchitis among all classes and conditions of men, and that because of that inflammation existing in some particular portion of its extent it receives its name, which in this instance is bronchitis, or an inflammation of the lining membrane of the bronchial tubes within the lungs.

Catarrh is a “cold seated in the head,” producing an inflammation of the lining membrane of the nostrils and the sinuses situate at the angles of the eyes. When the inflammation affects the large cavity of the throat, and especially the tonsils or gland on either side, it is called tonsilitis, or “*quinsy sore throat*.” If there is an inflammation of the membrane lining the larynx, or vocal apparatus, situate at the top of the windpipe, it is called *laryngitis*, or “clergyman’s sore throat;” and when the windpipe proper is the seat of disease, it is termed *trachitis*.

Generally, the disease is either in the lungs, its appendages, or the parts adjacent to them, owing to the extent of the mucous surface and the highly nervous condition and susceptibility of the various tissues of

which they are composed, which easily accounts for the danger of allowing "colds" and their addenda to linger about the very seat of our existence. An attack of "cold" or catarrh begins with *chilliness* alternate with *flashes of heat*; a *dryness of the nostrils*; *sneezing* and *discharge of vitiated mucus*; with *headache* and general continued fever.

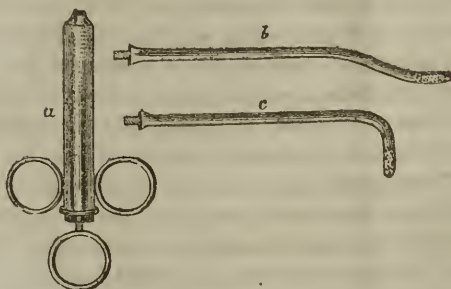
The secretion of mucus is capricious, now *small*, now *large*, gradually assuming a different consistency and color, till the disease passes "off;" or it "takes on" a more formidable aspect, which, becoming *chronic*, "travels down," compromising the throat and windpipe; finally involving the bronchial tubes in the very substance of the lungs, it establishes the formation of *tubercles*, commonly ending in *consumption*. The engraving below shows the *windpipe* and larynx, or vocal box.



Explanation.—The upper part of the figure shows the inside of the larynx, or vocal box, just behind the projection known as Adam's apple; the lower part, the inside of the trachea or windpipe. The dark spots in the center of the larynx show the situation of the vocal chords, by which the voice is produced; the irregular openings below, *ulcers* upon the mucous membrane. The cut ends of the cartilages which assist in forming the larynx and trachea, and which, being firm, prevent a collapse of the sides of this important tube, are seen in the white substances along the sides of the figure. In the condition of the parts here represented, especially when the ulcers make their way into the vocal chords, the voice is partially or wholly lost.

Now an inflammation attacking any of these parts is often complicated with an ulceration which sometimes extends throughout the mucous membrane, and even the proper *substance* in juxtaposition; and when the *habit* is of a serofulous or syphilitic taint, these ulcerations, through secondary or hereditary transmissions, are extremely obstinate and difficult of cure—all of which are the forerunners of consumption.

We apply our remedies in such cases by means of showering syringes, a description of which is shown below.



Explanation.—(a) is a barrel somewhat larger than the instrument known as a catheter, with two bulbs of different curves, either of which may be screwed to the barrel to be filled with the remedy to be employed, and which, being perforated with numerous small holes, upon forcing the piston down, throw a fine shower upon the seat of the disease. The bulb (c) is for the nostrils, that marked (b) for the windpipe. This instrument is made of silver.

The showering syringe is peculiarly adapted for the treatment in *catharrh* and *granular disease of the throat*, which almost invariably extend to the lungs, there developing consumption. It is so constructed as to admit of being passed “down” the throat, or “up” behind the curtain of the palate into the passage communicating with the nostril, and, when discharged, throws a potent fluid upon and against the diseased parts. The fluids we thus employ are of various kinds and strengths, and are adapted to the stage and peculiarity of the disease. Besides, the vocal chords, not involving loss of substance, are often affected with a palsy, and the voice becomes partially or entirely lost.

In all these diseases, the *inhalation of the various vapors*, in connection with other local applications by means of the syringes, *exercise*, *pure air*, *diet*, etc., as pointed out in each particular case under consideration, will be found among the most efficiently curative remedies extant.

Sometimes after an attack of quinsy, and owing to the remaining irritation, or from chronic inflammation in the throat, the *uvula* or appendage of the palate becomes *enlarged* and *hardened*, or *elongated* from relaxation, which, by its dropping and dragging upon the sensitive “swallow” (the epiglottis, a valve which covers the opening of the windpipe at its orifice, thus diverting the food to the alimentary passage immediately behind it), produces “cough,” as would a crumb of bread by its irritation. Now the friction thus occasioned produces inflammation, which

extends to the larynx, the windpipe, the bronchial tubes, unto the very substance of the lungs. When this condition of the uvula can not be remedied without, we usually remove a portion of it, which operation is a matter of small account compared with the amount of injury it might inflict by its presence.

ASTHMA is a disease occurring in stated paroxysms, attended by *wheezing* and much difficulty in *respiration*. It is not uncommon that the symptoms prove in the highest degree distressing; and, unless it be accompanied with some *organic* disorganization, *asthma* is seldom fatal, although some authors contend to the contrary.

Now this difficulty of breathing is common in bronchial affections, laryngitis, also in some affections of the heart; so that does not always imply that the disease is truly asthmatic.

Asthma is of two varieties—*spasmodic* (*true*) or *humoral*, or *dry* and *moist*, the latter being usually attended with an inflammation of the bronchial tubes and a thickening in the mucous membrane, producing an obstruction to the function of respiration; while the former (*true asthma*) consists in painful spasms, or a periodical contraction in some part of the breathing tubes within the lungs, or at their common origin at the windpipe. The same thing happening in the windpipe proper, and accompanied with the formation (through inflammation) of a false membrane, is called *croup*. *Croup* is a disease more prevalent with children than with adults, and the means instituted for its cure are too well known to need a description here. With regard to *asthma*, however, until it be accompanied with deep-seated alterations in the structure of the lungs, it generally admits of a cure by means of proper vapors by inhalation; and it will be seen that, inasmuch as *asthma* can likewise occur from breathing (inhaling) the effluvia arising from various decompositions of vegetables, mental emotions, the passions, dampness, smoke, impure air, too strong airs, new-mown hay, ipecac and other powders, etc., it is only by addressing our remedies opportunely, and in the form of vapors, precisely in the same manner as the disease was contracted, viz., by inhalation, that a cure, palliative or radical, can be expected.

Medicated Inhalation, then, will afford a *prompt* and *decided relief* in a large majority of cases of asthma, as is the result in every other disease of the respiratory organs. It therefore is the only hope that the invalid may implicitly rely on, very much depending upon the regularity in the habits, diet, bathing, etc.

We have thus passed in review the different diseases to which inhalation is applicable—diseases common in all temperate latitudes—from

which result an immense amount of suffering and early mortality—a fact which only points out the folly of delay in any case, and at once indicating the proper course to pursue in the hope of securing a return of health. There are many things which we have not revealed, and there are very many which we have to reveal in a future and more extended work. Here we must rest content with the conviction that we have severely cautioned our readers against that popular fallacy of fallacies, the inordinate and senseless swallowing of drugs in any and every possible shape for the ostensible purpose of relieving the system from diseases local in their character and remote from the stomach.

Patients can be treated without visiting the Institute in person, although it is preferred that they be seen and examined before commencing treatment.

We offer *ample* and most *comfortable* accommodations for *invalids* desirous of residing in the city during treatment, at very reasonable charges, and where they will receive the attentions so necessary for the promotion of recovery from disease under Dr. NESTELL's immediate supervision.

Nevertheless, if, owing to the fatigue attendant on traveling, or from a want of pecuniary means, they are prevented visiting us, they can, by writing full and legible particulars of their disease—to wit, how contracted, how long standing, age, sex, occupation, habits, etc.—be treated in the same manner as if under especial care and control. *Patients* thus treated can receive the remedies direct by express, and are charged \$15 per month, which includes all necessary advice by correspondence; but when attended at the Institute in person, \$25 per month. For simple examination of the lungs, with a descriptive chart, \$5.

Patients desirous of consulting by letter can address,

D. D. T. NESTELL, M.D.,

PHYSICIAN TO NEW YORK LUNG INSTITUTE,
6 BOND STREET, NEW YORK.

All business communications should be addressed to

G. VAN DEUSEN, *Secretary*.

BRIEF TREATISE

ON THE

DISEASES OF THE RESPIRATORY ORGANS,

WITH THEIR TREATMENT

BY THE INHALATION OF

COLD MEDICATED VAPORS,

AND THE USE OF

SHOWERING SYRINGES.

BY

D. D. T. NESTELL, A.M., M.D.,

Author of "An Obstetric Catechism;" "Examinations in Anatomy, Physiology, Chemistry, and Botany for the Use of Students;" "Human Physiology," and Attending Physician to the

NEW YORK LUNG INSTITUTE,

110 BOND STREET

NEW YORK:

PUBLISHED FOR GRATUITOUS DISTRIBUTION.

1856.



NEW YORK LUNG INSTITUTE,
54 E. HURST STREET







NATIONAL LIBRARY OF MEDICINE



NLM 03277261 7